

RING-BONES OR OSSIFIED CARTILAGES.

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THE ossification of the lateral cartilages of the foot of the horse, has appeared to us to proceed generally, from a too fixed and motionless state, into which the hoof has been brought by the application of the common iron shoe, nailed both sides the foot.

We have however Ring-bones not unfrequently occurring in cart horses, and especially dray-horses, naturally, and which in them appear to take place independently of the shoeing, which led us to imagine that in this case the vast magnitude and rigidity of the hoof itself, (for these animals are a sort of monster among horses), were producing the same effects, as the iron bound foot in the case of nag-horses; hence the explanation of this apparent anomaly.

We have often had occasion to observe, that the ossification did not commence in the middle of the cartilage and extend thence to its extremities, but was commencing usually at its insertion in the bone, and extended thence to nearly all parts of them.

These lateral bodies of the foot which we call cartilages, do not appear precisely of a similar organization to the parts so called in the joints and other parts of the animal system, and might without impropriety receive a name distinct and peculiar to them, since they are vastly more diversified and elaborately formed in the different parts of the horse's foot, than are these other cartilages. And since cartilages in general are the grand modellers of bone and preceding it, but here they are lasting in this state for life, that is if perfectly healthy. A word therefore to express them by, would we apprehend be useful to us in this case.

These remarkable bodies are in fact modeling the frame work of all the posterior parts of the horse's foot, as a substitute for bone, and affording that yielding and elasticity, that this extraordinary organ requires. But for a more particular description of these singular structures, we refer our reader to page 111 of the *Hipponomia*, and their appearance pl. xii, (a supplementary plate), where for distinction they are called the *great podal cartilages*, or *podo-chondria*. *Marmora* appears indeed from Vegetius, Lib. ii. c. 48, to have been applied to them by the ancients, no doubt from their hardness when ossified, and from affording the impression of their being like to *marble*. Their *mallones* also were, we believe, what we denominate *wind-galls*, and *thorough pins*, but with less elegance or of truth indeed.

These cartilages in their ossification, appear to spread from the point of their insertion in the coffin bone, gradually indurating through their whole extent, till the hardness rising above the hoof it can be felt by the fingers, and this part above the hoof obtaining the name of the

circle or ring of the coronet, hence the name of Ring-bone has followed as a natural consequence. Now the structure and offices of these remarkable parts having been particularly alluded to in our anatomy of this organ, it need not here be further dwelt upon. And it only remains for us to consider their relief, for their total extirpation and cure seems out of the question; still much may be done by a proper knowledge of them in the way of their prevention, and which may be achieved, in part or wholly, by our not embracing the foot too early and too permanently with a fixed inflexible shoe, that is to the Nag-horses; and as to the cart-horses, a reducing perhaps in some cases the inordinate strength and thickness of this *monster of a hoof*, might be of use in defeating their formation, and not resorting too early to the iron bond.

Further, for their relief, for they are very common, and a very great annoyance to the generous animal, wholly incapacitating him at times from service, we should recommend a light blister, or two, to the coronet generally, and in very desperate cases, perhaps a slight firing may be resorted to, or in lighter cases emollient fomentations of herbs, and with these a bleeding or two from the jugular and from the coronary veins, and other vessels of the foot, with rest and a soft bed, and a dose of purging medicine: these anti-inflammatory means will most generally subdue the present inflammation, soreness, and pain; for we have found when they occasion sudden lameness, and are most troublesome, it is from some sudden twist or wrench of the foot in their work, that has called up the inflammation of the parts, by the resistance the ossified portion of the cartilage makes, and which will most often yield to such measures.

And we think we have observed these ossifications to be more frequent on the outside, than inside of the foot. And we also think we have seen great relief given by deeply scoring with a drawing-knife longitudinally, the hoof itself, in three or four places, by which it is rendered less binding upon the parts within, and together with the expansion shoe to aid it, it has produced the most agreeable and beneficial effects, and this in an old horse, who after these measures soon returned to his work again. And so little has the elasticity of the foot been known or understood, that I apprehend this is the first time this simple means has been proposed. See Testimonies, p. 12, in favour of the *expansion shoe* in these cases.

This disease has also been strangely called, *chest-founder* by the smiths, merely apparently from its often causing a considerable retraction of the muscles of the chest, from the severe pains of the feet.

After what has been said as to the causes of this complaint, and of the inherent property of elasticity in these and all other feet, no man will, without well considering it, put the foot in irons, in the young growing animal, but on some very pressing emergency, and then only to remove it again on the first opportunity.